

PARENT AND STUDENT GUIDE

Sixth Grade Concepts and Skills



Prepared by:
Department of Curriculum and Instruction

A MESSAGE FROM THE SUPERINTENDENT

Dear Parents,

Welcome to another wonderful year of teaching and learning in Norfolk Public Schools! We are excited about joining with you to educate all students to be successful, productive contributors to society. We strive for all students to become powerfully literate. We have developed this parent guide to serve as a tool for you to stay involved in the learning process, and to assist you at home in strengthening your child's knowledge and skills in the core academic content.

This guide contains the state and local standards of learning in English, mathematics, science and history/social science. At the end of the guide, helpful hints for home are provided for you to use to enrich, enhance and strengthen your child's knowledge and skills in the various contents. Additionally, a calendar of important school dates is provided on the NPS website to help you keep track of holidays, early release days, parent conference day, and other important information.

Please use this guide at home as you partner with us in delivering a rigorous academic program to enable all students to become powerfully literate. If you need any assistance or additional ideas on how to use this guide or if you need other assistance with your child's education please contact your school. Finally, I look forward to working with you and the staff of Norfolk Public Schools to provide powerful teaching and learning opportunities to ensure the academic success of all of our students.

Sincerely,



Dr. Melinda J. Boone
Superintendent of Schools

What We Believe

The mission of Norfolk Public Schools, the cornerstone of a proudly diverse community, is to ensure that all students maximize their academic potential, develop skills for lifelong learning and are successful contributors to a global society, as distinguished by:

- Courageous advocacy for all students
- Family and community investment
- Data-driven personalized learning
- Strong and effective leadership teams
- Shared responsibility for teaching and learning
- Access to rigorous and rewarding college and career readiness opportunities

Board & Division Priorities

- Ensure full accreditation
- Increase academic achievement of all students
- Improve climate, safety & attendance
- Become a School Board of Distinction
- Promote Norfolk Public Schools to reflect outstanding accomplishments of staff, teachers and students
- Develop and coordinate a capital improvement plan for facilities and technology to enhance teaching and learning
- Attract, retain, and help to develop strong academic families and highly qualified teachers and staff

ENGLISH

In SPEAKING, LISTENING and MEDIA LITERACY, your child will:

- Analyze oral participation in small-group activities.
- Communicate as leader and contributor.
- Evaluate personal contributions to discussions.
- Summarize and evaluate group activities; analyze the effectiveness of participant interactions.
- As group leader, ensure that other group members participate.
- Use verbal and nonverbal feedback from others to self-evaluate.
- Infer and assimilate new ideas.
- Listen critically and express opinions in oral presentation.
- Distinguish between facts and opinions.
- Compare and contrast point-of-views.
- Present a convincing argument.
- Summarize what is heard.
- Organize presentations.
- Identify effective media messages.
- Compare and contrast auditory, visual, and written media messages.
- Identify the characteristics and effectiveness of a variety of media messages.
- Craft and publish audience-specific media messages.

In READING/LITERATURE, your child will:

- Read and learn the meanings of unfamiliar words.
- Extend general and specialized vocabulary.
- Use knowledge of word origins and derivations.
- Break words into meaningful prefixes, suffixes, and roots in order to derive word meaning.
- Use cognates, synonyms, and antonyms to expand vocabulary.
- Identify and analyze figurative language.
- Use reference books and word reference materials.
- Read and comprehend a variety of fiction and non-fiction.
- Use knowledge of literary forms to aid comprehension and predict outcomes.
- Use background knowledge as context for learning.

- Describe how author's style elicits emotional response from readers.
- Distinguish between first-and third-person point-of-view.
- Compare and contrast author's styles.
- Explain how character and plot development are used in a selection to support a central conflict or story line.
- Identify questions to be answered.
- Make, confirm, or revise predictions.
- Describe cause and effect relationships.
- Use context clues to read unfamiliar words.
- Draw conclusions and make inferences based on explicit and implied information.
- Organize information for use in written and oral presentations.
- Identify and summarize main idea and supporting details.
- Identify transitional words that signal text organizational patterns.
- Use text structures such as type, headings, and graphics to predict and categorize information.
- Read and write a variety of poetry.
- Describe visual images created by language.
- Compare and contrast elements of literature from a variety of selections.

In WRITING, your child will:

- Write narration, description, exposition, and persuasion.
- Identify audience and purpose.
- Use a variety of planning strategies to generate and organize ideas.
- Establish central idea and organization.
- Organize writing structure to fit mode or topic.
- Compose a topic sentence or thesis statement.
- Show elaboration and unity in multi-paragraph compositions.
- Select appropriate vocabulary and information to enhance the central idea, tone, and voice.
- Revise writing for clarity.
- Expand ideas by using modifiers, coordination, and subordination.
- Edit final copies for correct use of language and mechanics.
- Use writing as a tool for learning in all subjects.
- Use computer technology to plan, draft, revise, edit, and publish writing.

In RESEARCH, your child will:

- Select the best sources for a given purpose.
- Collect information from multiple sources including online, print, and media.
- Evaluate the validity and authenticity of texts.
- Become independent and knowledgeable in the area of using libraries and technology for research.
- Use technology as a tool to research, organize, evaluate, and communicate information.
- Cite primary and secondary sources.
- Define the meaning and consequences of plagiarism and follow ethical and legal guidelines for gathering and using information.

MATH

In NUMBER SENSE, your child will:

- Describe and represent equivalent relationships among fractions, decimals, and percents.
- Compare and order fractions, decimals, and percents.
- Model and express ratios for a given set of data as fractions in both numerical and verbal forms.
- Describe and apply ratios and rates in real-life situations.
- Identify, represent, order, and compare integers.
 - Describe real-world applications of integers.
 - Represent integers in the coordinate plane.
- Explore concept of exponents and perfect squares.

In COMPUTATION AND ESTIMATION, your child will:

- Estimate and solve multi-step practical problems that involve addition, subtraction, multiplication, and division of fractions and mixed numbers.
- Estimate and solve multi-step practical problems that involve addition, subtraction, multiplication, and division of decimals (with divisors up to thousandths).
- Estimate and determine the reasonableness of operations with fractions, decimals, and percents.
- Apply the orders of operations to evaluate algebraic expressions

In MEASUREMENT, your child will:

- Estimate conversions between the U.S. Customary System and the Metric System using ballpark comparisons.
- Determine the perimeter or area of polygons.
- Determine the circumference and area of a circle.
- Estimate, measure, and construct angles having specific characteristics.
- Graph ordered pairs in a coordinate plane.

In GEOMETRY, your child will:

- Determine the congruence of segments, angles, and polygons.
- Sort, classify, and draw quadrilaterals given their attributes.
- Sort, sketch, and construct models of and classify three dimensional objects.
 - Sketch rectangular prisms, cones, cylinders, and pyramids from nets, models, or two-dimensional representations.
- Construct models from nets for rectangular prisms, cones, cylinders, and pyramids.
- Explore and describe strategies for finding the surface area and volume of rectangular prisms.

In PROBABILITY AND STATISTICS, your child will:

- Describe mean as balance point.
- Determine the appropriate measure of center for a given situation.
- Determine the effect of change in a data set on the mean, median, and mode.
- Display, analyze, and interpret circle graphs.
- Compare and contrast graphs that present data from the same data set.
- Determine the probability of independent and dependent events.

In PATTERNS, FUNCTIONS, AND ALGEBRA, your child will:

- Analyze, describe, and represent numerical and geometric patterns and arithmetic sequences.
- Represent a one-step equation and its solutions using a variety of manipulatives, such as colored chips on an equation mat, algebra tiles, or weights on a balance.
- Investigate and apply properties of real number system.
- Graph inequalities on a number line.

SCIENCE

In INVESTIGATION, REASONING AND LOGIC, your child will:

- Demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations.
- Make observations involving fine discrimination between similar objects and organisms.
- Record precise and approximate measurements using appropriate laboratory equipment.
- Use scale models to estimate distance, volume, and quantity.
- State hypotheses, identify independent and dependent variables, and manipulate variables in controlled experiments.
- Manipulate one variable over time using many repeated trials.
- Devise a method to test the validity of predictions and inferences.
- Collect, record, analyze, and report data using appropriate metric measurements and tools.
- Analyze data and communicate the data through graphical representation (graphs, charts, and diagrams).
- Design models and simulations to illustrate and explain phenomena and systems.

In FORCE, MOTION, AND ENERGY, your child will

- Investigate basic sources of energy, their origins, transformations, and uses.
- Differentiate between potential and kinetic energy.
- Investigate the role of the sun in the formation of most energy sources on Earth.

- Differentiate between renewable and nonrenewable energy sources.
- Investigate energy transformations (heat/light to mechanical, chemical and electrical energy).
- Investigate the role of solar energy in driving most natural processes within the atmosphere, the hydrosphere, and on Earth's surface.
- Investigate the role of radiation and convection in the distribution of energy.
- Investigate the role of thermal energy in weather-related phenomena including thunderstorms and hurricanes.

In MATTER, your child will:

- Create models of the structure of an atom.
- Differentiate between elements and compounds.
- Create models to illustrate atomic bonding.
- Model a simple chemical change with an equation.
- Investigate the elements that comprise the largest portion of the solid Earth, living matter, the oceans, and the atmosphere.
- Investigate the unique properties and characteristics of water
- Investigate the properties of air and the dynamics of the Earth's atmosphere

In LIVING SYSTEMS, your child will:

- Gain an understanding of the natural processes and human interactions that affect watershed systems.
- Identify and locate Virginia's regional watershed systems.
- Differentiate between divides, tributaries, river systems, and river and stream processes.
- Analyze and explain the importance of wetlands and estuaries.
- Research major conservation, health, and safety issues associated with watersheds.
- Conduct water monitoring and analysis using field equipment including hand-held technology.

In EARTH/SPACE SYSTEMS, your child will:

- Investigate the organization of the solar system and the relationships among the various bodies that comprise it.
- Investigate the interactions among the sun, moon, Earth, other planets and their moons, dwarf planets, meteors, asteroids, and comets.

- Create models that illustrate the relative size of and distance between planets.
- Describe the role of gravity.
- Differentiate between revolution and rotation.
- Research the unique properties of Earth as a planet.
- Explain the relationship of the Earth's tilt and the seasons.
- Explain the cause of tides.
- Create a timeline of the history and technology of space exploration.

In RESOURCES, your child will:

- Research public policy decisions relating to the environment.
- Research management of renewable and nonrenewable resources.
- Research cost/benefit tradeoffs in conservation policies.
- Research mitigation of land-use and environmental hazards through preventive measures.

HISTORY/ SOCIAL SCIENCE

In HISTORICAL CONNECTIONS, your child will:

- Analyze major events in U.S. history; early exploration, colonization, the Revolutionary War, creation of the Constitution, Westward Expansion, and the Civil War.
- Identify landmark dates in United States history and explain their importance.
- Identify key individuals who have made an impact on the history of the United States.
- Differentiate between historical fact and historical interpretation.
- Recognize how different points-of-view have been influenced by nationalism, race, religion, and ethnicity.

In ECONOMIC UNDERSTANDING, your child will:

- Explain that the availability of resources directly influenced the culture of American Indian groups.

- Identify the costs and benefits of specific choices made, including the consequences, both intended and unintended, of the decisions and how people and nations responded to positive and negative incentives.

In GOVERNMENT AND THE CITIZEN, your child will:

- Understand that patriotic slogans and important speeches give us powerful insights into the thoughts and feelings of people during great events that shaped our history.
- Recognize that by exercising basic freedoms and rights, citizens can influence the government.
- Analyze the Declaration of Independence, the Constitution of the United States, and other key documents that explain and guarantee the rights and freedoms of U.S. citizens.

In PEOPLE, PLACES, AND THE ENVIRONMENT, your child will:

- Recognize key geographic features on maps, diagrams, and/or photographs.
- Recognize cultural changes as they relate to history and geography.
- Interpret the physical, political, and special purpose maps.

In HISTORY/SOCIAL SCIENCE SKILLS, your child will:

- Analyze and interpret primary sources and contemporary media to make generalizations about life in the United States before 1865.
- Evaluate information for accuracy and separate fact from opinion.
- Develop skills of persuasive writing, discussion and debate.
- Sequence events and periods in United States history.

Helpful Hints for Home

English

- Set aside a time and place for your child to read for at least 20-30 minutes a day.
- Make sure your child has a large supply of fiction & non-fiction materials he or she can read.
- Discuss materials your child is reading.
- Use the library as frequently as possible.
- Make time to read together as a family.
- Enhance your child's vocabulary with a family "word of the day."
- Encourage your child to keep a journal.

Math

- Invite your child to figure out solutions to everyday situations. You can do this by talking about the problem, asking your child for ways to solve it, and then asking how they came up with the solution.
- Help your child be a risk taker; see the value of examining a wrong answer and realize that the right answers will come with proper understanding.
- Ask your child questions and give him time to think about the answer.
- Ask your child to figure out why something is the way it is and then check out his ideas. Let him think for himself rather than try to figure out what answer you want to hear.

Science

Have your child-

- Interpret charts and graphs found in a variety of print media.
- Identify energy transformations that occur in the household setting.
- Identify cloud formations and the weather they predict.
- Discuss the structure, basic characteristics, and use of several elements on the periodic table encountered on a day-to-day basis.
- Develop a water conservation plan for the family and test its effectiveness by comparing water bills for several months.

- Discuss the chemical formula and use of common compounds encountered on a day-to-day basis.
- Explain why water is considered the universal solvent.
- Explain the chemical composition of the atmosphere.
- Explain the importance of the wetlands and what is being done locally to protect the wetlands.
- Explain the difference between rotation and revolution and how the two processes affect Earth.
- Lead a family discussion on how you may help conserve nonrenewable and renewable resources.
- Review technical vocabulary used during school lectures and in the textbooks.

History/Social Science

- Encourage your child to keep up with current events by reading the newspaper and watching newscasts with you. Discuss these events.
- Ask your child to plan a trip to a place in Virginia that has a historical, governmental or cultural background.
- Assist your child in participating in a community service activity.
- Make globes, maps, and the Internet available to your child and use every opportunity available to refer to them.





MEMBERS OF THE SCHOOL BOARD OF NORFOLK

Mr. Rodney A. Jordan, Board Chair
Dr. Noelle Gabriel, Board Vice Chair
Ms. Tanya K. Bhasin, Board Member
Ms. Courtney R. Doyle, Board Member
Rev. Edward K. Haywood, Board Member
Dr. Brad N. Robinson, Board Member
Ms. Yvonne P. Wagner, Board Member

Dr. Melinda J. Boone
Superintendent of Schools

Kipp D. Rogers, PhD
Chief Academic Officer, Academic Affairs

Bart Irwin, Senior Coordinator, Mathematics
Adrienne Britton, Senior Coordinator, Science
Bruce Brady, Senior Coordinator, History/Social Science

Keeysha James, Teacher Support Specialist

Permission is granted for copies of this guide to be reproduced for use with schools and families. No part of this publication may be used by a profit-making organization without prior written permission from Norfolk Public Schools.

© Norfolk Public Schools 2016